SK®
PROFESSIONAL TOOLS

PROFESSIONAL RATCHET MAINTENANCE GUIDE

If ratchet repairs are necessary refer to these inspection and repair guidelines

IMPORTANT INFORMATION:

INSPECT RATCHET BEFORE REPAIRING

Before beginning the maintenance/repair tear down sequence, confirm that the ratchet is not functioning properly by checking the ratchet under load for 360 degrees in both directions. This can be done with a socket or bolt mounted in a vice. After performing maintenance/repairs, re-test the ratchet function.

SAFETY INFORMATION :

Wear safety glasses. Read all instructions, (A through L) before starting.

TOOLS NEEDED:

- Vise
- Curved Chain nose pliers
- Micro Screwdriver
- T-Handle Hex Key

SK Ratchets are covered by a Limited Lifetime Warranty

SK Professional Tools, unless otherwise specified, are unconditionally guaranteed against defects in materials and workmanship for the expected life of the tool. SK at its option, will repair or replace any tool that fails to give satisfactory service, on condition that the tool (in SK's sole judgment) has not been misused, abused, modified or worn out from use and that it is returned to an authorized warranty station.

Please refer to the SK catalog or the website at www.skhandtool.com to determine the repair kit part number that corresponds with the ratchet needing repairs.

STEP 1: RATCHET INSPECTION GUIDE (Determine "-2", "-3", or "-9" repair kit)

1.1. Check the outside of the ratchet for cracks in the head or handle.
- If cracked, REPLACE RATCHET. If not cracked, proceed to step 1.2, disassembling ratchet per the Ratchet Inspection Guide.

1.2. Check the handle (head) teeth.
- If damaged, REPLACE RATCHET. If OK, proceed to step 1.3

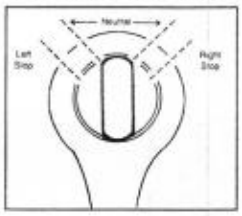
1.3. Check for cracks in the innerbody or square (ignore other components for now), and for failed ball spring (ball pushed into square).
- If cracked (or ball spring failure), REPLACE INNERBODY ASSEMBLY WITH A "-2" REBUILD KIT AND REASSEMBLE RATCHET. If no cracks, proceed to step 1.4.

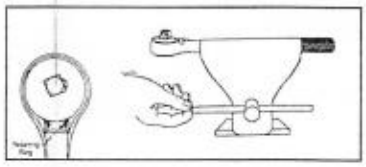
1.4. Check the cap for cracks.
- If cracked, replace it using the corresponding "-3" part number containing a cap and spring. If not cracked, keep the cap for continued use. Proceed to step 1.5.

1.5. Check for dirt or rust buildup inside the slot in which the pawl is held.
- If dirt or rust is present, clean and reassemble ratchet.

Confirm that the pawl will move freely in both directions.
- If not, REPLACE THE INNERBODY ASSEMBLY WITH "-2" REBUILD KIT AND REASSEMBLE RATCHET.
- If yes, REPLACE INNERBODY COMPONENTS WITH A "-9" REBUILD KIT, AND REASSEMBLE RATCHET.

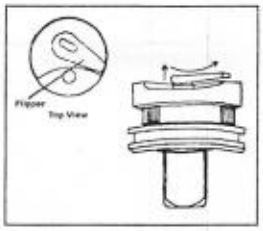
STEP 2: RATCHET REPAIR / ASSEMBLY INSTRUCTIONS





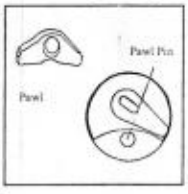
A) Rotate cap into neutral position. The ratchet drive end (innerbody) should turn freely in either direction.

B) Place ratchet in vise as shown, drive square up. Compress retaining ring by squeezing ends together with curved chain nose pliers. Pull off the innerbody with your free hand.



C) Caution for each drive size: Please note that the plunger pin is spring loaded and may eject from the stem assembly.

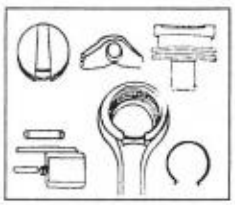
For ¼"Dr and 3/8"Dr: Maintain neutral pawl position and with curved chain nose pliers, rotate and lift flipper completely.
Turn innerbody over to allow pawl pin to drop out. Now remove pawl.

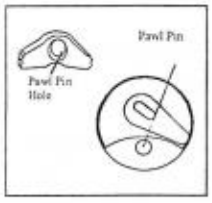


For ½"Dr: Place innerbody square in a vise. Keep the flipper in one direction and press the plunger pin with a hex key. While keeping the pressure, lift and turn the flipper with a micro screwdriver used as leverage.
Turn innerbody over to allow pawl pin to drop out. Now remove pawl.

For ¾"Dr: Remove pawl pin (loose fit – turn innerbody over to drop it out) and pawl. Using curved chain nose pliers remove plunger bushing and stem.

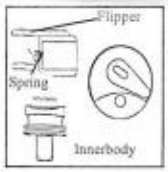
(...CONTINUED FROM LEFT)





D) Clean and inspect all components. Replace worn components per Ratchet Inspection Guide, start at step 1.3.

E) For 1/4", 3/8", and ½" Drive: Place pawl into innerbody, aligning pin holes. Insert pawl pin through the top of the innerbody.

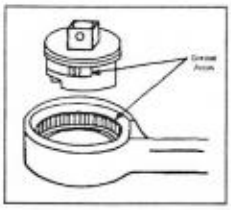


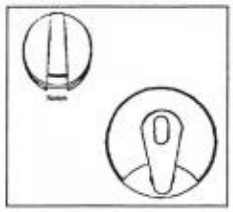
Stem Assembly

F) Using curved chain nose pliers, place spring in stem assembly (in pin bushing for ¾"Dr).
For ½"Dr and ¾" Dr: Place stem into the innerbody and position flipper at an angle (over cap recess on ½"Dr and at maximum turn angle on ¾"Dr).
For ¼" and 3/8" Dr: Using curved chain nose pliers, place plunger pin, round end out, into stem assembly. Compress the pin with pliers while inserting the stem assembly into the innerbody. Keep the pawl at a neutral position.

G) For ½"Dr and ¾"Dr: Using curved chain nose pliers, place plunger pin into stem assembly (without removing the stem from the innerbody).
For ½"Dr: Using Hex Key compress the plunger pin into stem while turning flipper towards neutral position.
For ¾"Dr: Place the stem in neutral, insert pawl into innerbody and insert pawl pin through aligning pawl pin holes.

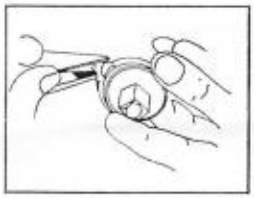
H) **IMPORTANT:** Center the ratchet's pawl teeth as shown in the image at the top right, setting flipper into the neutral position



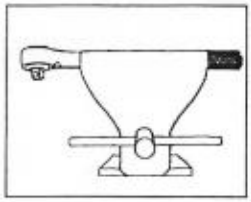


I) Using ratchet grease, lubricate the teeth on the inside of the ratchet handle and coat the inside of the innerbody core (behind pawl) with grease.
Do not over fill cavity with grease. Recommended ratchet grease is a food grade grease with industrial strength anti-wear and extreme pressure performance with water resistance.

J) Place cap, with notch over flipper, on top of the innerbody assembly



K) Position the retaining ring into the innerbody groove as shown on left.



L) NOTE: Innerbody assembly is replaced up into the handle in order to keep cap in proper position (as seen on right). With ratchet in vise, place the innerbody into the handle. Compress the retaining while seating innerbody into position. Release retaining ring. Test for proper function in both directions.

Please refer to the SK catalog or the website at www.skhandtool.com to determine the repair kit part number that corresponds with the ratchet needing repairs.

CINSTSHT10